

REMARKS

Claims remaining in the present patent application are Claims 1-10 and 21-30. The Applicant respectfully requests consideration of the above captioned patent application in light of the remarks presented herein.

Allowance and Issue Withdrawn

Claims 1-10 and 21-30 were indicated as allowed in the Notice of Allowance and Issue Fee Due and the Notice of Allowability dated June 13, 2005. The issue fee was paid on September 13, 2005.

In the Notice of Withdrawal from Issue under 37 CFR § 1.313 dated November 2, 2005, the Notice of Allowance and Issue Fee Due and the Notice of Allowability were vacated, and the present application was withdrawn from issue. Applicants respectfully note that MPEP § 706.04 indicates, "it is unusual to reject a previously allowed claim" and instructs the Examiner that "great care should be exercised in authorizing such a rejection." Applicant respectfully asserts that it is unclear that such a standard has been met. Applicant regrets the withdrawal of Issue.

The Notice states, “[t]he reasons (for withdrawal) will be communicated to you by the examiner.” Applicant does not find such an explanation in the rejection, and respectfully requests an explanation of the withdrawal from issue be made of record in the present application.

Drawing Objection

The drawings are objected to under 37 CFR § 1.83(a) as allegedly not showing the recited MOSFET recited in Claims 4 and 24. Applicant respectfully traverses.

Applicant respectfully notes that the drawings filed on April 2, 2004, were indicated as accepted by the Examiner in the Notice of Allowability dated June 13, 2005 and in the Official Action dated November 6, 2004.

The MPEP (706.04) requires, “[f]ull faith and credit...be given to the search and action of a previous examiner unless there is a clear error in the previous action or knowledge of other prior art. As there is neither evidence nor allegation of such a “clear error” in the review of the drawings, and “knowledge of other prior art” is not at issue, Applicant respectfully asserts that the previous acceptance of the drawings should stand.

In addition, Applicant respectfully asserts that the present drawings, including Figure 3, illustrate a structure that may be a MOSFET in accordance with embodiments of the present invention. Moreover, the rejection refers to similar figures in the cited art, e.g., Cogan Figure 5, as illustrating the recited MOSFET. Applicants respectfully assert that one of ordinary skill in the art would understand the Figures of the present application to illustrate a MOSFET in accordance with embodiments of the present invention.

For these reasons, Applicant respectfully submits that the drawing objections under 37 CFR § 1.83(a) are overcome, and respectfully solicits acceptance of the drawings.

35 U.S.C. § 102

Claims 1, 2, 21 and 22 stand rejected under 35 USC § 102(e) as being allegedly unpatentable over Wensley et al. (US 6,566,227, "Wensley"). Applicant has reviewed the cited reference and respectfully asserts that embodiments in accordance with the present invention as recited in Claims 1, 2, 21 and 22 are patentable over Wensley.

With respect to Claim 1, Applicant respectfully asserts that Wensley fails to teach or fairly suggest the limitation "a silicon dioxide layer disposed on the

bottom of said trench” as recited by Claim 1. While Wensley may teach silicon dioxide deposited within the trenches, Applicant respectfully asserts that Wensley is completely silent as to such silicon dioxide applied to the bottom of a trench. For example, none of the Wensley figures illustrate silicon dioxide at the bottom of a trench, and the specification is silent as to any application of silicon dioxide to, or at, the bottom of a trench.

For this reason, Applicant respectfully asserts that Claim 1 overcomes the rejections of record, and respectfully solicits allowance of this Claim.

Further with respect to Claim 1, Wensley teaches, “[a] collar 115 is deposited within the trenches 113” (column 4, line 35, emphasis added). As is well known in the art, a “collar” is a generally circular structure open on both ends, e.g., a cylinder without a top or a bottom. By teaching a “collar” of silicon dioxide, Wensley actually teaches away from embodiments of the present invention that recite, “a silicon dioxide layer disposed on the bottom of said trench” as recited by Claim 1.

For this further reason, Applicant respectfully asserts that Claim 1 overcomes the rejections of record, and respectfully solicits allowance of this Claim.

Applicant respectfully asserts that Claim 21 overcomes the rejections of record for at least the rationale previously presented with respect to Claim 1, and respectfully solicits allowance of this Claim.

Applicant respectfully asserts that Claims 2 and 22 overcome the rejections of record by virtue of their dependency, and respectfully solicits allowance of these Claims.

35 U.S.C. § 103

Claims 3-10 and 23-30 stand rejected under 35 USC § 103(a) as being allegedly unpatentable over Wensley et al. (US 6,566,227, "Wensley") in view of Cogan et al. (US 4,835,586, "Cogan"). Applicant has reviewed the cited reference and respectfully asserts that embodiments in accordance with the present invention as recited in Claims 3-10 and 23-30 are patentable over Wensley in view of Cogan.

Applicant respectfully asserts that Claims 3-10 and 23-30 overcome the rejections of record by virtue of their dependency, and respectfully solicits allowance of these Claims.

Further with respect to Claims 3-10 and 23-30, Applicants respectfully assert that Cogan actually teaches away from embodiments in accordance with the present invention as recited in Claims 3-10 and 23-30 as well as teaches away from Wensley, with which it is combined in the rejection. Claims 1 and 21, from which embodiments in accordance with the present invention as recited in Claims 3-10 and 23-30 depend, recite a silicon dioxide layer terminated below the planar surface of the silicon device. In contrast, Cogan, in Figures 1 and 5 (illustrating final versions of the embodiments) teaches silicon dioxide terminated at the surface of the device.

For this further reason, Applicant respectfully asserts that Claims 3-10 and 23-30 overcome the rejections of record, and respectfully solicits allowance of these Claims.

CONCLUSION

Claims remaining in the present patent application are Claims 1-10 and 21-30.

The Examiner is invited to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

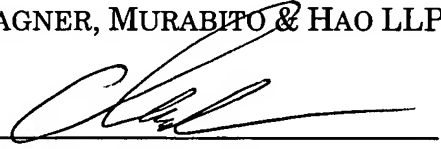
Applicant has reviewed the following references that were cited but not relied upon, and does not find these references to show or fairly suggest embodiments of the present claimed invention: US 4,791,462, US 5,602,405, US 5,753,938, US 5,847,417, US 5,861,643, US 5,883,406, US 2002/0036318, US 6,818,940, and US 6,855,981.

Please charge any additional fees or apply any credits to our PTO deposit account number: 23-0085.

Respectfully submitted,

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Date: May 5, 2006


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